



US012310334B2

(12) **United States Patent**  
**Yeager**

(10) **Patent No.:** **US 12,310,334 B2**

(45) **Date of Patent:** **May 27, 2025**

(54) **MULTI-LEAD DOG LEASH SYSTEM**

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **18/347,861**

(22) Filed: **Jul. 6, 2023**

(65) **Prior Publication Data**

US 2023/0345913 A1 Nov. 2, 2023

**Related U.S. Application Data**

(63) Continuation of application No. 17/193,206, filed on Mar. 5, 2021, now Pat. No. 11,730,146.

(60) Provisional application No. 62/988,699, filed on Mar. 12, 2020.

(51) **Int. Cl.**  
**A01K 27/00** (2006.01)

(52) **U.S. Cl.**  
CPC ..... **A01K 27/003** (2013.01); **A01K 27/005** (2013.01)

(58) **Field of Classification Search**  
CPC ..... A01K 27/003; A01K 27/005; E05B 73/0005; Y10T 24/3913; B68B 5/00  
See application file for complete search history.

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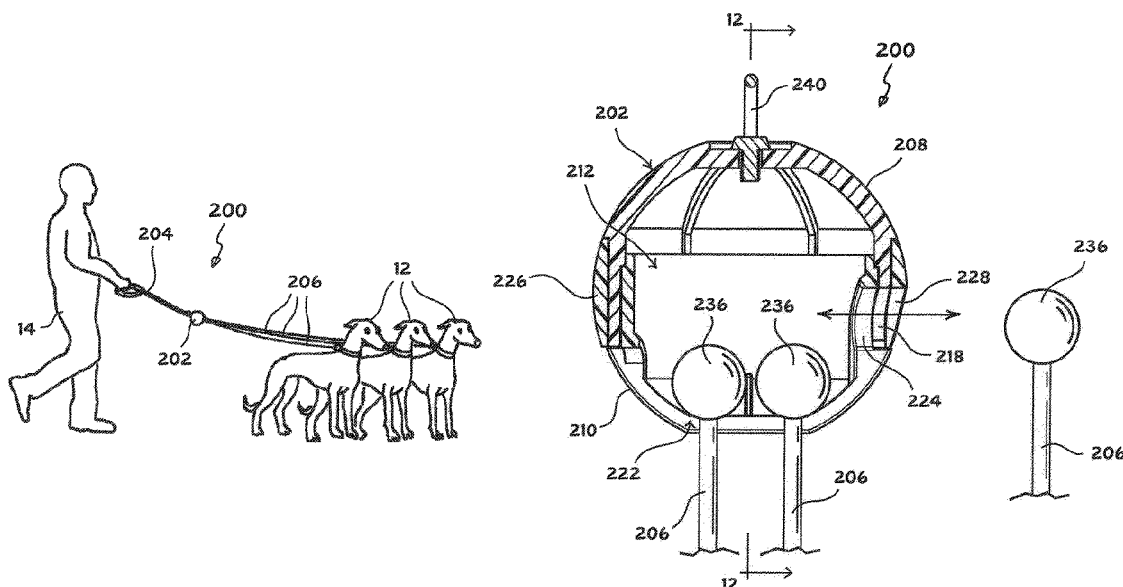
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(57) **ABSTRACT**

A multi-lead leash system has a housing that is configured to removably capture ends of a plurality of animal leads within the housing with the leads extending outwardly from the housing. The opposite ends of the leads each have coupling to attach the lead to an animal collar. The housing and captured ends are configured such the capture ends are freely movable within the housing to prevent tangling of the respective leads while walking animals attached to the leads, for example. The housing also has a user lead coupling for the removable coupling of a user lead to the housing, the user lead being grasped by a user using the leash system.

**4 Claims, 8 Drawing Sheets**



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FIG. 1

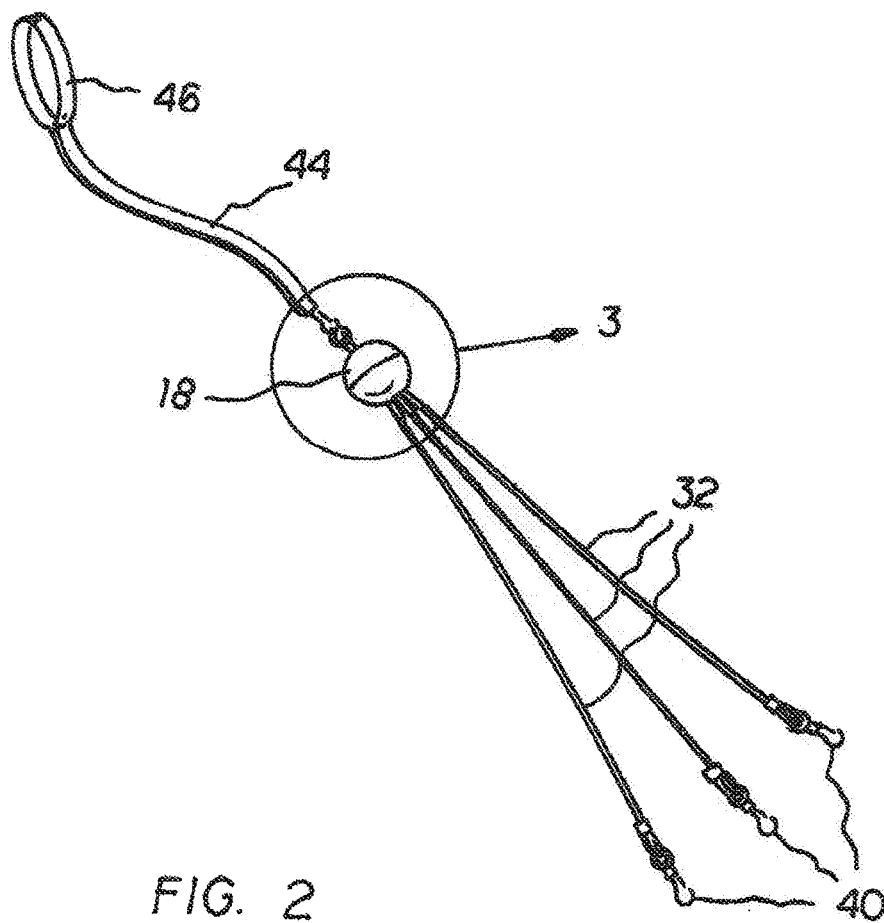
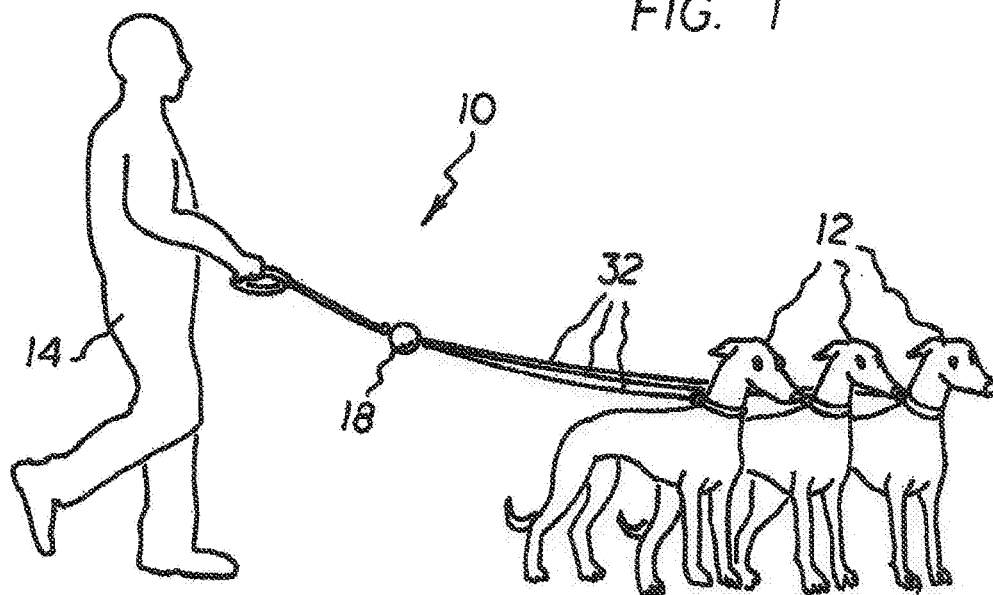


FIG. 2

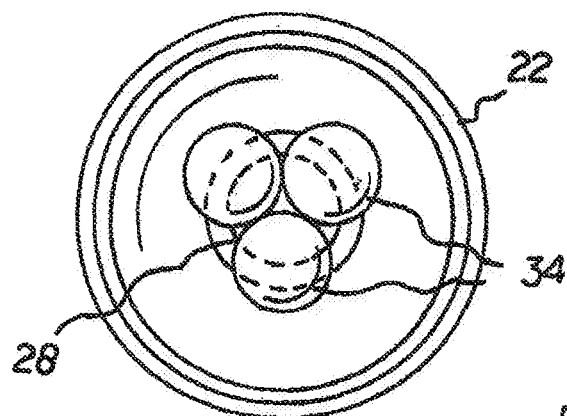
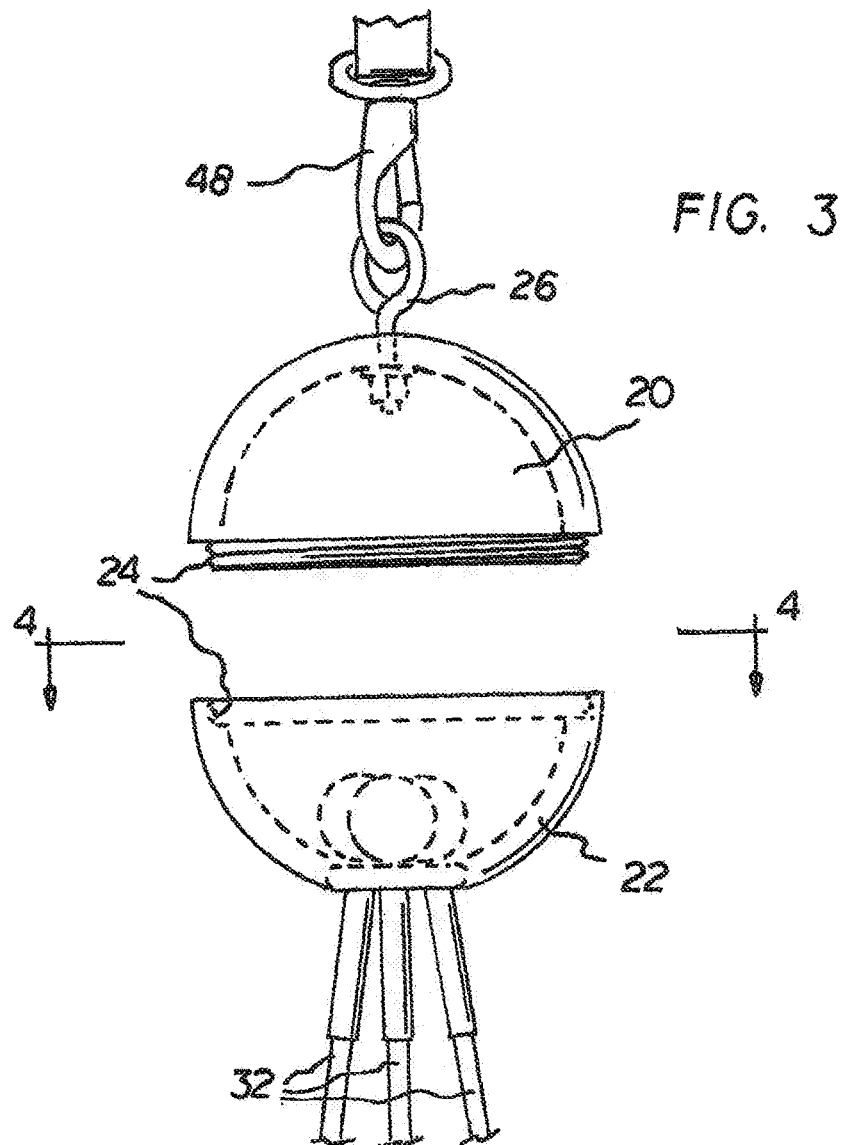


FIG. 4

FIG. 5

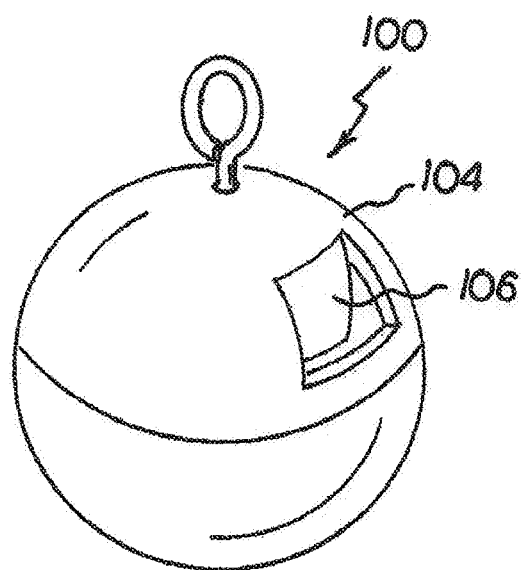
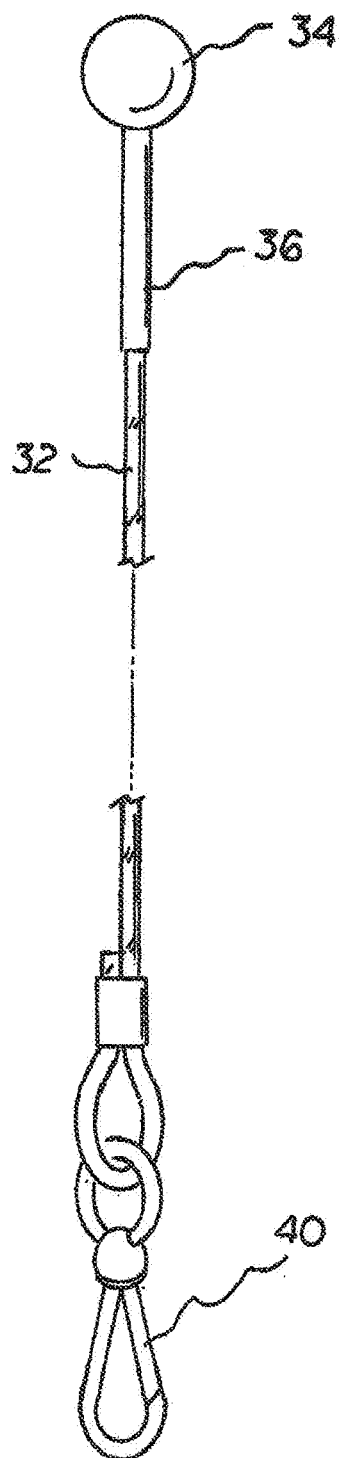


FIG. 6

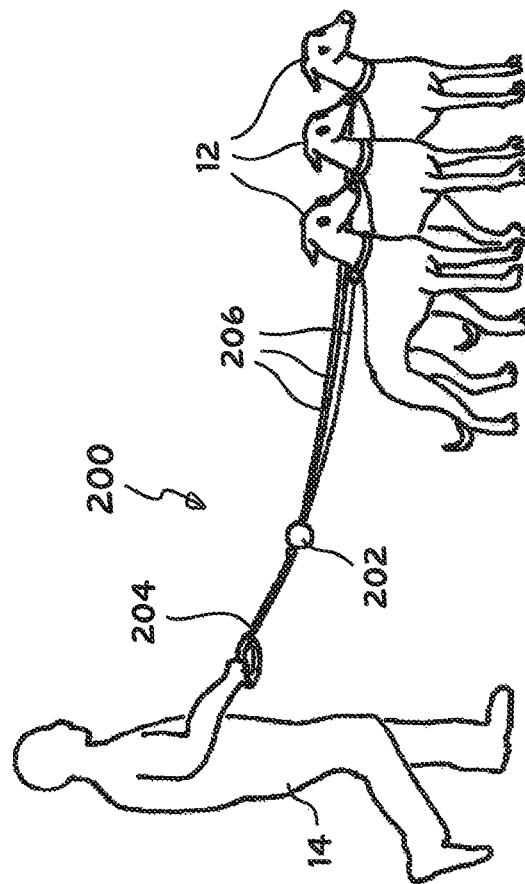


FIG. 7

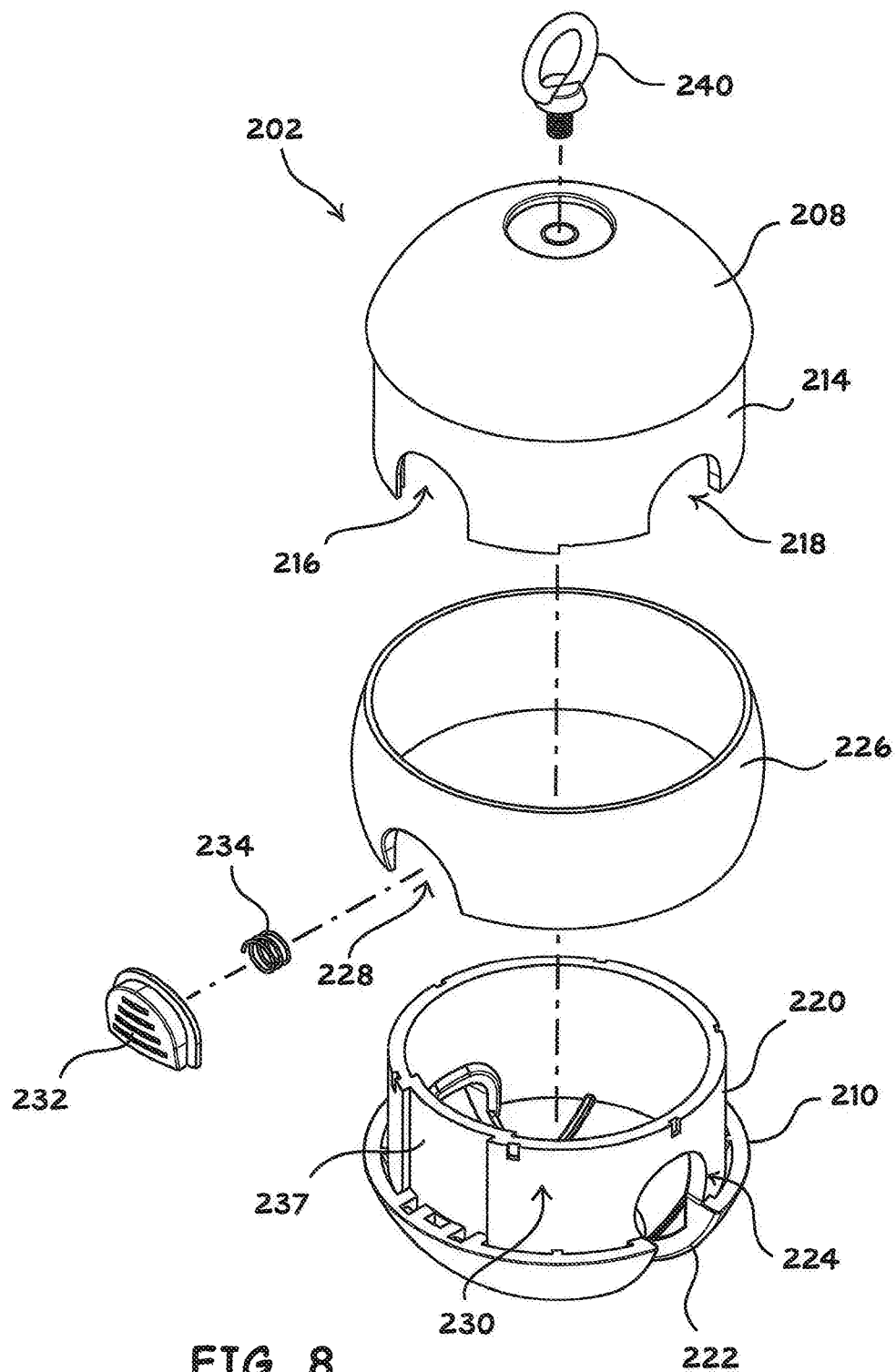
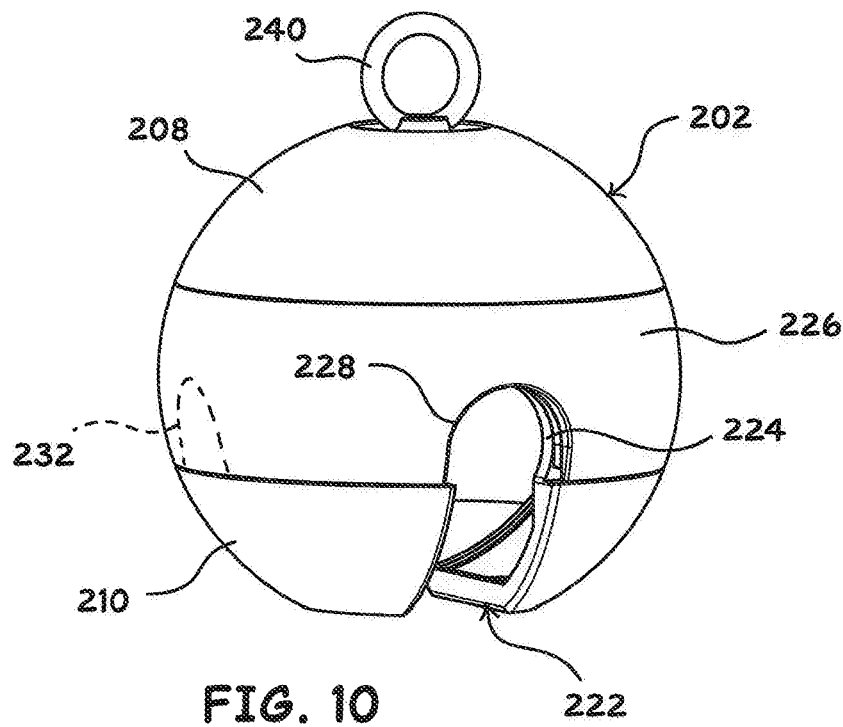
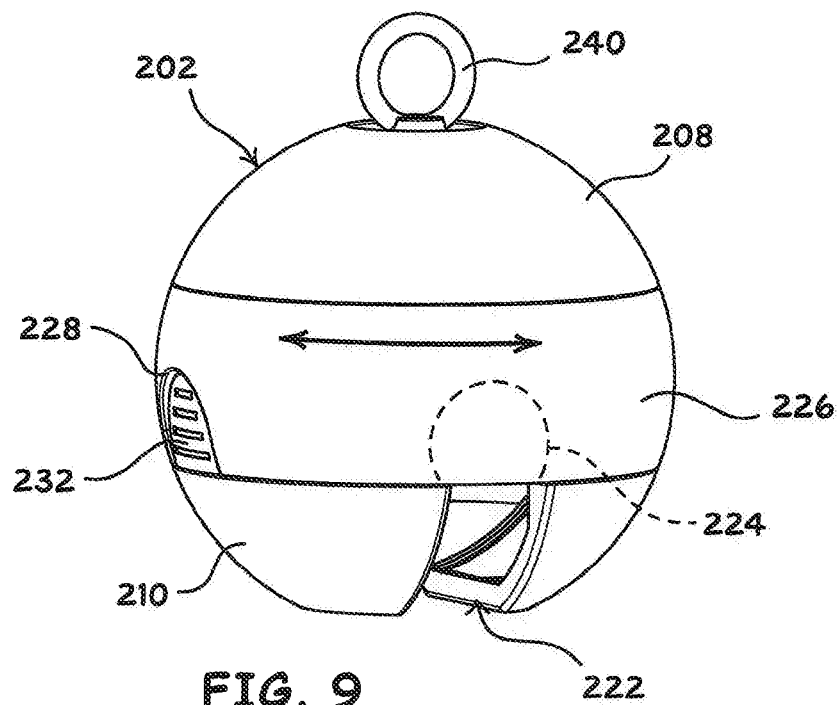


FIG. 8





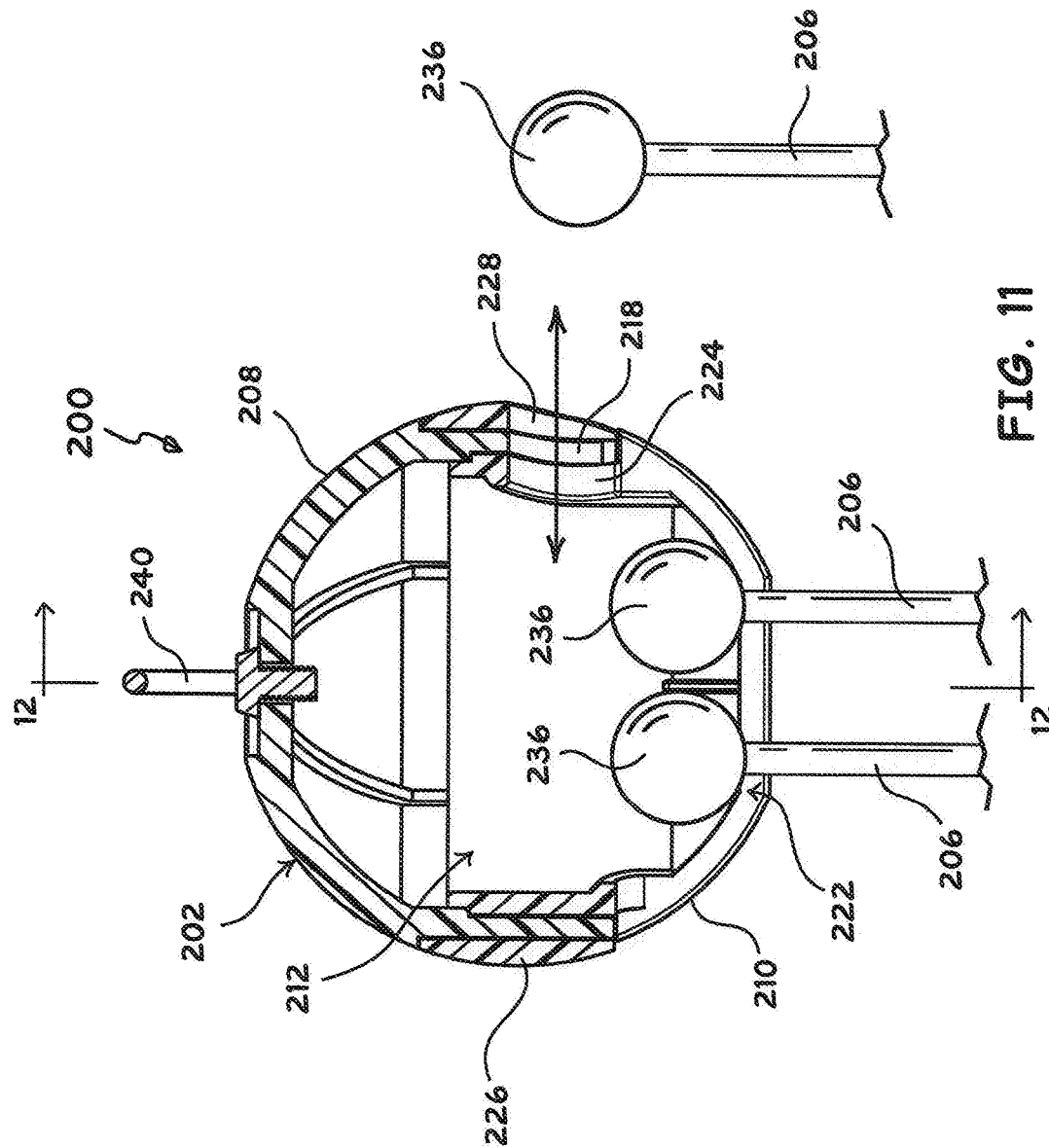


FIG. 11

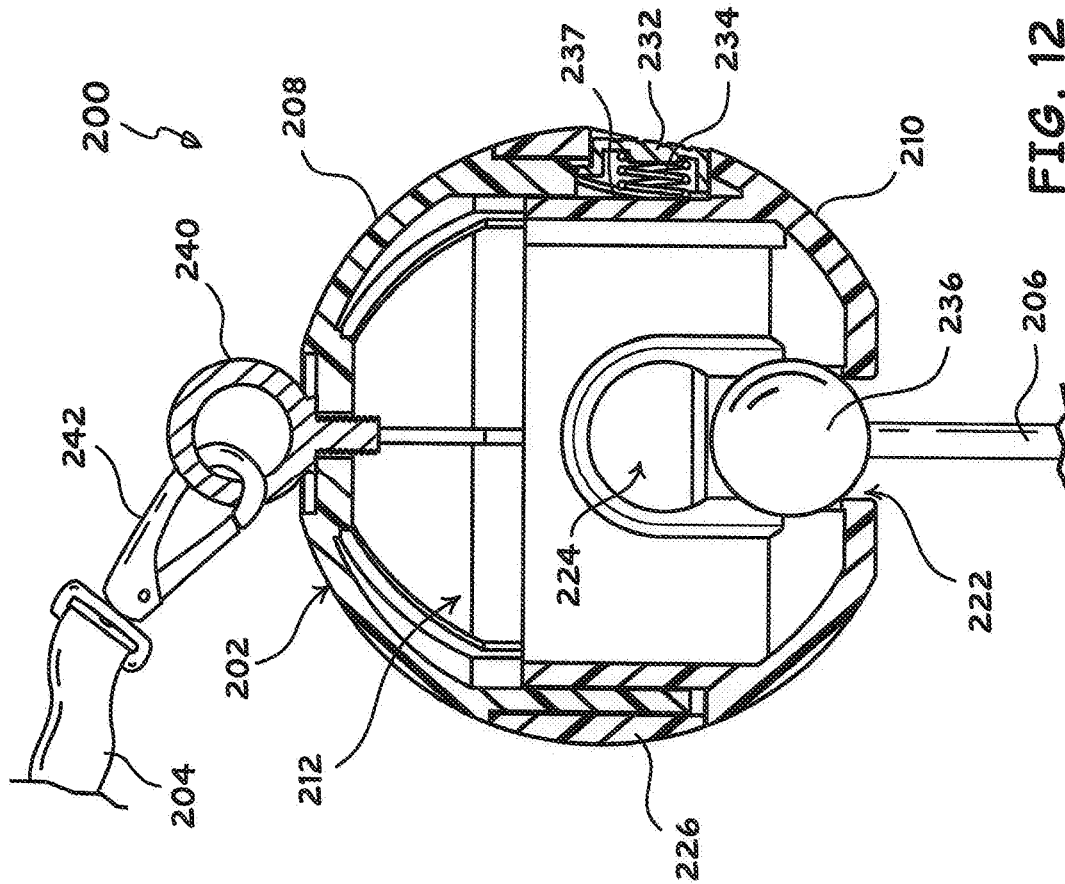
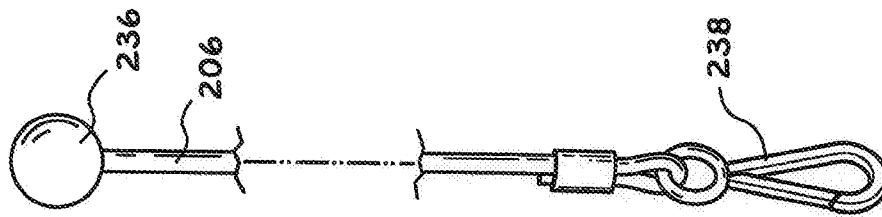


FIG. 13



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**MULTI-LEAD DOG LEASH SYSTEM****CROSS-REFERENCE TO RELATED APPLICATIONS**

This application is a continuation of U.S. patent application Ser. No. 17/193,206 filed Mar. 5, 2021, which claims the benefit of U.S. Provisional Patent Application Ser. No. 62/988,699, filed Mar. 12, 2020, the entirety of each is incorporated herein by reference.

**FIELD OF THE INVENTION**

Embodiments of the invention relate to multi-lead dog leashes, and more particularly, to a multi-lead dog leash system for walking a plurality of dogs and preventing tangling of leads.

**BACKGROUND OF THE INVENTION**

The use of dog leashes is known in the prior art. More specifically, dog leashes previously devised and utilized for the purpose of walking one or more dogs are known to consist basically of familiar, expected, and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment many objectives and requirements.

While these devices fulfill their respective, particular objectives and requirements, they do not describe a multi-lead dog leash system that allows walking multiple dogs while preventing a tangling of the leads.

Therefore, it can be appreciated that there exists a continuing need for a new and improved multi-lead dog leash system which can be used for walking multiple dogs while preventing a tangling of the leads. In this regard, the present invention substantially fulfills this need.

**SUMMARY OF THE INVENTION**

In view of the disadvantages inherent in the known types of dog leashes now present in the prior art, the present invention provides an improved multi-lead dog leash system. As such, the general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new and improved multi-lead dog leash system and method which has all the advantages of the prior art and none of the disadvantages.

In general, in one aspect, a multi-lead leash system is provided. The multi-lead leash system has a housing having an interior space and a hole formed through the housing that allow access into the interior space from a position externally from the housing. A plurality of animal leads are provided, each animal lead has opposite first and second ends and a length that extends between the first and second ends. A terminus located at the first end of each animal lead. The hole has a hole opening width, each terminus has a terminus width, and the length of the lead has a lead width, wherein the dimensions of the hole opening width, the terminus width, and the lead width are selected such that no terminus can pass through the hole when at least one terminus is disposed in the interior and against the housing adjacent the hole, and such that a terminus can pass through the hole when each terminus that is disposed within the interior of the housing moved away from the hole a sufficient distance that allows the passing of another terminus through the hole.

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In general, in another aspect, a multi-lead leash system is provided. The multi-lead system has a housing having an interior space and a longitudinal slot formed through the housing and terminating at one end at a first aperture extending through the housing. The slot has a transverse width, and the first aperture has a first aperture opening width, the aperture opening width being greater than the transverse width of the slot. A shutter is movably attached to the housing and is movable relative to housing between first and second positions. When the shutter is in the first position, the first aperture is closed and when the shutter is in the second position the first aperture is open. At least two animal leads are provided, each lead has opposite ends, one of which has a terminus. The terminus has a terminus width that is less than the first aperture opening width and greater than the transverse width of the slot such that the terminus may pass through the first aperture when the shutter is in the second position and cannot pass through the slot. The terminus of each animal lead is removably disposed within the interior space of the housing with a length of the respective animal lead extending through the slot. And a user lead coupling is attached to the housing at a side opposite of the slot to allow connection of a user leash to the housing.

There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood and in order that the present contribution to the art may be better appreciated.

Numerous objects, features and advantages of the present invention will be readily apparent to those of ordinary skill in the art upon a reading of the following detailed description of presently preferred, but nonetheless illustrative, embodiments of the present invention when taken in conjunction with the accompanying drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of descriptions and should not be regarded as limiting.

As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based, may readily be utilized as a basis for the designing of other structures, methods, and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be had to the accompanying drawings and descriptive matter in which there are illustrated embodiments of the invention.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The following drawings illustrate by way of example and are included to provide further understanding of the invention for the purpose of illustrative discussion of the embodiments of the invention. No attempt is made to show structural details of the embodiments in more detail than is necessary for a fundamental understanding of the invention, the description taken with the drawings making apparent to those skilled in the art how the several forms of the invention may be embodied in practice. Identical reference numerals do not necessarily indicate an identical structure. Rather, the

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same reference numeral may be used to indicate a similar feature of a feature with similar functionality. In the drawings:

FIG. 1 is a perspective showing of a multi-lead leash system constructed in accordance with the principles of an embodiment of the present invention, the system being shown during an in-use orientation;

FIG. 2 is a perspective showing of the multi-lead system of FIG. 1, the system being shown in a non-use orientation;

FIG. 3 is an enlarged exploded showing of the constraining apparatus of the prior Figures;

FIG. 4 is a plan view taken at line 4-4 of FIG. 3;

FIG. 5 is a view showing a lead constructed in accordance with an embodiment of the invention;

FIG. 6 is a perspective view of an alternative embodiment of the invention;

FIG. 7 is a perspective view of an alternative embodiment of the invention;

FIG. 8 is a perspective, exploded view according to the embodiment of FIG. 7;

FIG. 9 is a perspective view of a housing according to the embodiment of FIG. 7, showing a shutter in a closed position;

FIG. 10 is a perspective view of a housing according to the embodiment of FIG. 7, showing a shutter in an open position;

FIG. 11 is a first cross-sectional view of a housing according to the embodiment of FIG. 7;

FIG. 12 is a second cross sectional view a housing according to the embodiment of FIG. 7; and

FIG. 13 is a plan view of an animal lead according to the embodiment of FIG. 7.

#### DETAILED DESCRIPTION OF THE INVENTION

With reference now to the drawings, and in particular to FIGS. 1-5 thereof, an embodiment of the new and improved multi-lead dog leash system embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

The present invention of the multi-lead dog leash system 10 is comprised of a plurality of components. Such components are individually configured and correlated with respect to each other to attain the desired objective.

In their broadest context, the present invention is a dog leash system. The system 10 first includes a constraining apparatus formed in a spherical configuration with an upper hemisphere and a lower hemisphere. A hook extends upwardly from a central extent of the upper hemisphere. A circular opening is formed in a central extent of the lower hemisphere.

Next provided is a plurality of lower leads. Each lower lead each has an upper end and a lower end. Each upper end is formed with an enlarged terminus in a spherical configuration. Each enlarged terminus has a thinner shaft extending downwardly from an associated enlarged terminus. Lastly, a lower clip is attached to the lower end of an associated lower lead.

From a specific viewpoint, the present invention is a multi-lead dog leash system 10 for walking a plurality of dogs 12 and for preventing a tangling of leads between the dogs and an operator 14. The walking and the abating are done in a safe, convenient, and economical manner. The system includes a housing 18 formed in a spherical configuration with an upper hemisphere 20 and a lower hemisphere 22. A separable coupling 24 removably joins the

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upper hemisphere and the lower hemisphere. An eyehook 26 extends upwardly from a central extent of the upper hemisphere. A circular opening 28 is formed in a central extent of the lower hemisphere. The circular opening has a first diameter.

Next provided are a plurality of lower leads 32, three in the primary embodiment. The lower leads each have an upper end and a lower end. Each upper end is formed with an enlarged terminus 34 in a spherical configuration. Each enlarged terminus has a second diameter between 70 percent and 90 percent of the first diameter. Each enlarged terminus has a thinner shaft 36 extending downwardly from an associated enlarged terminus through the circular opening. Each thinner shaft has a length of between 2 and 5 times the diameter of the enlarged terminus. Each lower lead has a length of from 2 feet to 3 feet.

Three lower clips 40 are next provided. Each lower clip is attached to the lower end of an associated lower lead.

Lastly provided is an upper leash 44 having an upper end and a lower end. A handle 46 is formed as a loop in the upper end with an upper clip 48 in the lower end. The upper clip is separably attached to the eyehook 26. The upper leash has a length of from 1.5 feet to 3 feet. The optimal length depends on the height of the operator.

In FIG. 6, an alternate embodiment of the invention, the system 100 includes an upper hemisphere 104. The upper hemisphere is formed with an aperture 106 for viewing within the constraining apparatus.

In FIGS. 7-13, there is shown another embodiment of a multi-lead leash system 200 in accordance with the invention. Like the previously described embodiments, leash system 200 is configured to allow a user 14 to walk more than one dog 12 while preventing tangling of leashes.

In the representatively illustrated embodiment, leash system 200 includes a housing 202, a user lead 204, and a plurality of animal leads 206. As depicted, the user lead 204 and the animal leads 206 are connected to the housing 202 such that the user 14 can grasp ahold of the user lead 204 and walk the dogs 12, each secured by a separate animal lead 206. While three animal leads 206 are shown, the system 200 can be operated with more or less than the shown three leads.

As described in further detail herein, the coupling between each animal lead 206 the housing 202 provides a tangle-free configuration that prevents the animal leads 206 from becoming tangled while the dogs are secured to a respective animal lead.

As depicted, the housing 202 has a first housing half 208 connected to a second housing half 210 and defines an interior space 212 within the housing 202. Representatively shown, the housing 202 is spherically shaped, but should not be limited to being spherically shaped because the housing could be shaped differently while remaining within the scope of invention.

First housing half 208 has a sidewall 214 that has formed therethrough a first aperture 216 and a second aperture 218 that is circumferentially offset from the first aperture. As representatively shown, and preferably, the apertures 216 and 218 are semi-circular shaped. However, the apertures 216 and 218 could have different shapes and should not be limited to the shown semi-circular shape.

The second housing half 210 has a sidewall 220 that has formed therethrough an elongated slot 222. One end of the slot 222 terminates at a third aperture 224 that is also formed through the sidewall 220. The housing halves 208 and 210 are connected such that the first aperture 216 aligned with the third aperture 224 so an object can be passed through the

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apertures and disposed within the interior **212** of the housing, as will be described in further detail herein.

A ring **226** has an aperture **228** that is formed through the sidewall thereof of the ring. The aperture **228** is open at one end of the ring, as shown. The ring **226** is movably attached to the housing **202** so that the ring can move relative to apertures **218** and **224** between a first position and second positions. In the first position, the aperture **228** of the ring is aligned with apertures **218** and **224** and the open end of aperture **228** is aligned with the slot **222**. In the second position the aperture **228** is not aligned with apertures **218** and **224**. In this manner, ring **226** is a shutter that operates to open and close apertures **218** and **224** to allow access and prevent as to the interior space **212**. As depicted, the ring **226** is disposed in a circumferential recess **230** formed on an exterior of the housing **202** such that the ring can rotate about the housing between the first and second positions. In FIG. 9, the ring **226** is shown in the second position wherein apertures **218** and **224** are shutter closed by the ring. In FIG. 10, the ring **226** is shown in the first position wherein the ring aperture **228** is aligned with housing apertures **218** and **224**, thereby opening the apertures to allow passing an object into and out of the interior space **212** of the housing.

A latch can be provided to lock the ring in the second position. As representatively shown, the latch comprises a push button **232** that is attached to the housing such that when the ring **226** is in the closed position the push button extends into or engages ring aperture **228** and restrains the ring from rotating about the housing **202**. A spring **234** can be provided to bias the button **232** into or engagement with the ring aperture **228** when the ring is rotated into the closed position. As depicted, the button **232** and spring **234** are held captive in a recess **237** of the side wall **220** of housing halve **210** with the button extending through aperture **216** of housing halve **208**.

Like leads **32** discussed above, each animal lead **206** has opposite ends with one end having attached thereto or having a terminus **236** and the opposite end having an attached clip **238**. Clip **238** is attachable to an animal collar. As representatively shown, terminus **236** is spherically shaped and has a terminus diameter that is less than the width of or diameters of housing apertures **218** and **224** and ring aperture **228** such that the terminus can be passed through these apertures to be disposed in the interior **212** of the housing **202**. The terminus diameter is great than the width of the housing slot **222** such that the terminus cannot pass through the slot.

To this end, each animal lead **206** is movably connected to the housing **202** by inserting the terminus **236** through aligned apertures **218**, **224**, and **228** and with a length of the

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lead extending through the slot **222**. Shuttering apertures **218** and **224** retains the terminus **236** within the housing interior **212**. This animal lead-to-housing coupling allows each terminus **236** to move freely relative to housing **202** within its interior **212**, which prevents the leads **206** from becoming tangled.

A leash coupling **240**, such as, for example an eyebolt is attached to the housing **202** at a side opposite of the slot **222**. Coupling **240** allows attachment of user lead **204** to the housing **202** by a clip **242**, for example.

While the invention herein disclosed has been described by means of specific embodiments and applications thereof, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope of the invention set forth in the following claims.

What is claimed is:

1. A multi-lead leash system, comprising:

a housing having an interior space and an elongated slot formed through a periphery of the housing, the interior space being defined by an interior wall having opposing wall surfaces separated by a distance therebetween, the slot formed through one of the opposing wall surfaces; at least two animal leads each having opposite ends one of which has a terminus, the terminus having a terminus width that is greater than width of the slot such that the terminus cannot pass through the slot; wherein the terminus of each animal lead is disposed within the interior space of the housing with a length of the respective animal lead extending through the slot and movable along its length; wherein the interior space has a volume greater than the combined volume of each terminus and the distance between the opposing wall surfaces is at least twice the terminus width such that each terminus is freely movable within the interior space of the housing relative to the housing, thereby preventing entanglement of the animal leads extending through the slot; and a user lead coupling attached to the housing at a side opposite of the slot.

2. The multi-lead leash system of claim 1, wherein the housing is spherically shaped.

3. The multi-lead leash system of claim 1, wherein the terminus of each animal lead is spherically shaped.

4. The multi-lead leash system of claim 1, further comprising a user lead removably connected to the user lead coupling.

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